

Notice of Allowability

Application No.

10/828,287

Examiner

Jean M. Corrielus

Applicant(s)

NAKATSUKA, DAIKI

Art Unit

2162

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment filed on December 13, 2005.
2. ☒ The allowed claim(s) is/are 1-15, and 18 renumbered as 1-16.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).


* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying Indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
- ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
- ☒ Examiner's Amendment/Comment
- ☒ Examiner's Statement of Reasons for Allowance
- ☐ Other _____


Jean M. Corrielus
Primary Examiner
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DETAILED ACTION

1. This office action is in response the amendment filed on December 13, 2005, in which claims 1-15 and 18 are presented for further examination.

EXAMINER'S AMENDMENT

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Shrinath Malur (reg. No. 34,663) on April 17, 2006.

The application has been amended as follows:

In the claim:

1. (Currently Amended) A computer system, comprising:

a first computer;

a plurality of storage systems coupled to the first computer over a network; and

a second computer coupled to the first computer and the plurality of storage systems,

wherein the first computer sends a request to the second computer.

wherein the second computer has information about security level of the plurality of storage systems, selects, in response to the request from the first computer, one of the plurality of storage system according to ~~meeting the request based on~~ the information in the second computer, and transmits a command to the selected one of the plurality of storage systems for creating a logical volume which is constructed on a physical disk device of the one of the

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plurality of storage systems for use by the first computer based on the request of the first computer,

wherein the one of the plurality of storage systems creates the logical volume ~~meeting the request of the first computer~~ in accordance with the command, and forwards a creation completion notice to the second computer, and

wherein after receiving the notice, the second computer notifies the first computer of path information of an access path from the first computer to the logical volume in the one of the plurality of storage systems created by the one of the plurality of storage systems.

2. (Currently Amended) A computer system according to claim 1, ~~wherein the information about the plurality of storage systems is information about a security level of each of the plurality of storage systems,~~ wherein the request sent by the first computer to the second computer is a request for creating the logical volume ~~which makes it possible to secure the~~ with a high security level.

Claim 3, line 7, after "IPSec process," please insert --and--.

Claim 4, line 13, after "IPSec process," please insert --and--.

Claim 5, line 15, after "IPSec process," please insert --and--.

Claim 8, line 7, after "logical volume," please insert --and--.

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Claim 9, line 8, after "IPSec process," please insert --and--.

Claim 10, line 21, after "IPSec process," please insert --and--.

Claim 11, line 19, after "IPSec process," please insert --and--.

Claim 12, line 20, after "IPSec process," please insert --and--.

Claim 15, line 18, after "based on the request," please insert --and--.

Claim 18, line 13, delete "which storage system meets the request based on the information"
please insert --the storage system is in accordance with the information in the second computer--.

Allowable Subject Matter

3. The present application has been thoroughly reviewed. Upon searching a variety of databases, the examiner respectfully submits that claims 1-15 and 18 are allowable in light of the terminal disclaimer and in light of the prior art made of record.

Reason For Allowance

4. The following is an examiner's Statement of Reasons for Allowance: The present invention is directed to a management server that manages presence of a security function possessed by a physical port, according to the information about the management, wherein the server automatically decides to which physical port a particular logical volume is allocated after

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creating the volume. The closest prior art, Kern et al., (US Patent no. 6,446,209 and 6,336,187) are directed to a set of sequences, when one the application program (110-112) experiences conditions requiring allocation of storage to dictate relevant aspects of the necessary allocation. The application programs issues an allocation command to the host commanding the host to assign security and access key to a storage region of the appropriate size, which specifically directs the controllers to associate the access key and operation parameter with the allocated storage region. However, Kern et al., either singularly or in combination, fail to anticipate or render obvious the recited features "creating a logical volume which is constructed on a physical disk device of the one of the plurality of storage systems for use by the first computer based on the request of the first computer, wherein the one of the plurality of storage systems creates the logical volume in accordance with the command, and forwards a creation completion notice to the second computer, and wherein after receiving the notice, the second computer notifies the first computer of path information of an access path from the first computer to the logical volume in the one of the plurality of storage systems created by the one of the plurality of storage systems". These features, in conjunction with all other limitations of the dependents and independent claim, render claim 1-15 and 18 allowable.

Since allowable subject matter has been indicated, applicant is encouraged to submit formal drawings in response to this Office action. The early submission of formal drawings will permit the Office to review the drawings for acceptability and to resolve any informalities remaining therein before the application is passed to issue. This will avoid possible delays in the issue process.

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Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee.

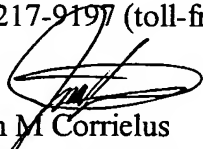
Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance".

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean M. Corrielus whose telephone number is (571) 272-4032. The examiner can normally be reached on 10 hours shift.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Breene can be reached on (571) 272-4107. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jean M Corrielus
Primary Examiner
Art Unit 2162

April 17, 2006